SciVerse ScienceDirect

Procedia - Social and Behavioral Sciences 28 (2011) 646 – 650

Procedia
Social and Behavioral Sciences

WCETR 2011

# A comparative study between virtual and traditional approaches in higher education in Iran

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**Abstract**

Nowadays, methods and approaches of virtual education are increasingly used at universities. This paper aims to study and compare two virtual and traditional approaches in Iran higher education in aspects of the learner, teacher, learning environment and education. Taking advantages of qualitative research, a using the method of qualitative descriptive type and analyzing literature review, presented virtual educational plans and other texts, these two approaches will be studied and compared. Finding will be presented in the form of comparative tables, and finally, recommendations will be presented in order to educational problems in making use of virtual education in Iranian universities.


*Keyword: Traditional Education, Virtual Education, Educational approach, Higher Education, Learning Environment*

## 1. Introduction

Nowadays, with the development of information and communications new technologies, modes of business and routine activities, communication with others, access to information, and generally all man's life fundamentals have undergone a huge change. Man has made use of technology and tools in education and learning since ancient time. Yet, education and learning have perhaps never faced marvelous changes originated from the application of information, communications new technologies such as Internet, CD and multimedia systems. Mainly aiming to promote the qualitative level of educational service supply and other objectives such as the development of the number of addresses, such technologies enable educational institutes to economically transmit their intended subject and content to students and clients and generally to all their addressees in the shortest possible time (Sharif university of Technology, 2002). Transmission of knowledge has rapidly influenced by telecommunications networks (broadcasting, cable, Internet, World Wide Web, email, and so on) (Abeles, 1998), or that long established institutions may be turned into 'dinosaurs' overnight (Noam, 1995). The "virtual" is used in informatics to indicate something which does not physically exist. Yet, it is actualized through software's. Having been discussed in the 1980 and the 1990s, virtual reality means a computer simulation in which one can interact with an artificial medium or environment through a computer (Ghourchian et al, 2004).

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doi:10.1016/j.sbspro.2011.11.122

What is a virtual university? How might it differ from a non-virtual or traditional university? Stuart Cunningham and his collaborators, reviewing a range of new media related to future scenarios for higher education, provide a useful summary of the vision of the virtual university. Imagine a future in which students never meet a lecturer face in a class room, never physically visit the on-campus library; in fact, never set foot on the campus or into an institutional lecture-room or learning centre. Such image is the future proposed by the virtual university scenario (Cornford & Pollock, 2002).

Without considering the infrastructures and objectives of virtual education, we cannot hope for its implementation and effectiveness. Prior to any decision making, such infrastructures should be identified and actions should be taken as to implement virtual education in order to fulfill its objectives. If we want to fundamentally deal with virtual education we should pay attention to a series of points existing in its infrastructures which are 1- ”communications” or “technical” infrastructures communications facilities are not optimum in Iran. Yet, with the arrival of new technologies in near future, this weakness will be remedied, and most probably, this sector will move ahead of other sectors of virtual education.. For the students who seek for studying in this method inside Iran, video-audio conferences are not optimally used of internet communications are relatively costly and slow in Iran. While in other countries, internet communications are qualitatively and quantitatively better. The telephone lines used as communications lines are not comparable with the world’s communications (board band, Wi-Fi and very high speeds light fiber). Communications problems still remain in case of service supplying to the Iranian students abroad. Many countries use cables for communications and enjoy high, favorable speeds. The Iranian service suppliers however perform dial up connection; they are very vulnerable against probable hacking. 2- The second problem is “techniques” of cooperation or the social infrastructure this means one of the most important infrastructures, and an issue on which the European themselves put more emphasis than they do on educational provisions. “Techniques of cooperation” are even considered in the sector of group studies and cooperation on course texts.3- “educational provisions” or “educational infrastructure” is next point. Educational provisions are completely different in virtual education than in traditional education; it is a mere mistake to perform virtual education with the provisions of traditional education. Virtual education dose not only mean the conversion of traditional course texts into computer texts. In virtual education, 40%-50% of the educational texts are provided by the instructor, and the remaining are specified and compiled via students’ cooperation and relation, , the main subject is presented by the instructor, and the other items are supplemented through ideas, works, researches and studies of the students themselves (Fotourehchi,2003;Gerami,2003;Ranbo ,2001).

## 2. Comparison of traditional education with virtual education

Education is a process in which the establishment of a defined communication between the teacher and the learner leads to the promotion of knowledge, increase of information, acquisition of skill, and generally, to the making of changes in a fixed ratio in learners’ mental and practical capabilities. From this point of view, education can be reckoned a type of communication or relation furthermore, education is an issue blended in communications, and any event or change in communications, communications vehicles and communications technologies directly influence education. Based on this, it should be said that education is divided into two forms: traditional and virtual. Traditional education refers to that group of teachings the basic portion of whose order is based on the teaching system. In another word, in traditional education, the learner is obliged to harmonize his own techniques and learn ability with the types, techniques, skills and desires of the teacher. On the contrary, virtual education discussed under titles such as electric education, internet education, computer based and “web” based education and finally, virtual education, refers to the group of teaching the basic portion of whose system is founded on the network based learning system in which the learner is the major axis(Dilamaghani,2001). It is not easy to identify some characteristics for a virtual university because the infrastructural principle of programming in this type of university limitlessness or no limitation. A virtual university has been founded to be free of traditional systems limitations and characteristics. Yet, what is seen at virtual universities(whose numbers are increasing in the world) leads us to consider some of the differences between this type of higher education and the traditional higher education system in terms of educational system, directionality and emphasis, the system of functions and relations, courses content, tests and technology in education as its characteristics**.** Difference between virtual and traditional universities (Montazer & Dayyani, 2003; Doulaii, 2003)

| Index | Traditional approach | Virtual approach |
|---|---|---|
| Philosophy of existence | Teacher direction | Self direction |
| Commission | Teaching/learning | Learning |
| Attitude | Group | Individualized |
| Teaching time | Hour limitation | Unlimited |
| Educational technology | Traditional | Electronic |
| Subject matters | Printed sources | Ultra media sources, multimedia sources |
| Need for educational space | Too much | Too little |
| Need for communication equipment | Too little | Too much |
| Academic calendar | Ordered, predetermined | Flexible, complying with individual calendar |
| Educational interaction | Direct, face to face | Semi independent/indirect |
| Students requirements | Scientific capability | Scientific capability & network capability |
| Educational environment | School& selected | In any(worldwide) place |
| System motives | Educational norms & criteria | Virtual educational standards |
| Subject matters size | Limited & selected | Unlimited & diversified |
| Educational responsibility | Book direction, teacher direction | Student direction |
| Educational content | With little changes | Updated |
| Educational course | General –university medium | Life time education |
| Generation of content & subject matters | Gross production(applicable course book) | Mass(individual) naturalization |
| Test time | Final semester or final year | Permanent, with no time limitation |
| Test nature | Reconstruction of the memorized content to receive a certificate | A means for determining the level of access to specified education objectives |
| Result | Test mark | Electronic work file |

The advent of internet and its role and application in education have caused changes in educational paradigms and have changed traditional pedagogies into new pedagogies, observed in the following table.

Comparing of traditional and new paradigm pedagogy of Ranbo,(2001), adapted from Jafari(2003)

| Comparing of traditional and new paradigm pedagogy | |
|---|---|
| Traditional paradigm | New paradigm |
| Inactive learning based on subject matters narration | Active learning based on subject matters application |
| Teacher directed education | Learner directed education |
| Individual work | Group work |
| Packages of scientific subject matters | Interdisciplinary application |
| Inactive learning sources | Interactive learning sources |
| University with network/ computer lab | Service supplying to web/internet/pc |
| Indoor courses | Net work courses |
| Learning how to get ready for exams | Getting ready for life time learning |

## 3. The most important achievements of virtual university

among others, the most important achievements of virtual university can be listed as follows:1)quality increase of learning by and knowledge of students and university students.2)facility of access to large volume of information and sciences in the world.3)quick and on-time access to information in a very little time.4)decrease of some educational costs.5)promotion of quality, accuracy and precision of scientific materials and subject matters.6)scientific promotion of students and university students(Dilamaghani,2001).

## 4. The situation of virtual universities in Iran

Establishment of virtual universities in Iran should be surveyed from two cultural and economic aspects. Their establishment is an opportunity to present Iran's universities culture and language from the cultural point of view. As an example, Tamil virtual university was establish to reinstate a language which was about to vanish, or the Jews virtual university which was founded for cultural purposes. Due to Iran's political and cultural situation, virtual universities can also economically cause the attraction of foreign currencies which can be benefited from in research and/ or universities development. Virtual universities are less costly than traditional universities. Establishment of virtual universities is thus very economic. Regarding the state of virtual education in Iran, there are two different theories. In the first theory, the experts believe that the infrastructures required for implementing virtual universities

in Iran are not complete and a major part of relevant problems relates to communications networks. In the second theory, it is believed that Iran's network structure is full to the extent of technology implementation in virtual educations and that the major problem relates to content and training of man power. On the other hand, many experts of virtual education believe that it is better to start virtual education from schools and high schools rather than from universities. In spite of all the problems in the way of Iran's virtual education situation, admission of the first internet students of ministry of sciences has started at Shiraz University. The educational council has provided Shiraz University with the B.Sc. level implementation permit of electricity engineering, communications, computer engineering (software/hardware) and control and precision tools(discrete B.Sc.) courses and with the master degree level implementation permit of laws and E-trades courses. Implementing this type of education at other universities including Sharif, Tehran, Amir Kabir and science and industry Technical Universities has also been principally agreed upon (Khaleghi, 2002). Lack of the comprehensive and exclusive definition of virtual education in Iran is among other problems, because based on different definitions, some people regard E-education in the form of a CD as virtual education, and some others believe that virtual education should be performed on line, so that in this way. The roles of instructors, consultants and advisors are also determined. Lack of correct understanding of the concept of virtual education or taste differences in experts have in fact caused complicated problems (Masoudi,2003). It seems of course that despite some views differences, regarding the necessity of implementing and utilizing virtual education in Iran, experts have unanimity. According, most of them do not significantly oppose the continuation of traditional education. Yet, they seek for establishing and developing E-education beside traditional education. They are well aware of the importance of accelerating the speed of virtual education implementation.

## 5.Conclusion

Traditional universities should inevitably comply with the course of new changes. In the new environment, the role of instructors and trainers will change. They will more play the role of a facilitator and trainer or of educational designers. The change or design and implementation of appropriate educational management systems are deemed to be a means for continuous education which can include students and teachers at any age, in any geographical locality, in any social and political situation and position or with any type of education. New technologies generate more flexibility in educational affairs. Yet, for utilizing these facilities, the higher education institutes structure should also change. In order to utilize any new technological system in educational affairs, requirements such as establishing technology strong infrastructures, compiling educational standards required for evaluating teachers and students, suitable culture making, changing society traditional approach in the issue of education and investment and participation of the public and private sectors in this field should accordingly be fulfilled. Regarding the actions taken in this field and the enthusiasm of university authorities and even of managers of non educational organizations and administrations for utilizing virtual education methods and change and development of access to educational technologies, it is predicted that during the next 10 years, most of university units in Iran will take actions as to electronically admit and train students and utilize virtual educations at a very expanded level. By providing suitable infrastructures such as high speed internet, supplying suitable, cheap hardware/software services, supporting those who found such as scientific projects and promoting E-education among the people, the government should prepare an environment fit for the growth and promotion of Iran's scientific level using modern facilities.

## Acknowledgment

Authors express their sincere thanks to all participants in the study, who shared their time and expertise to us; and also Dr Payam Najafi, vice chancellor for Research, Islamic Azad University, Khorasgan Branch for his kind support.

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